

The ANTIQUE RADIO GAZETTE



OFFICIAL
PUBLICATION OF
THE ANTIQUE
RADIO CLUB
OF AMERICA

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No. 4



Capitol Radio Phonolier 1922

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It is our intention to have the Gazette published as closely as possible to the following dates:

March 31	June 30
September 30	December 30

The closing dates for receiving material of all kinds in order to have it appear in the next issue would be:

February 15	May 15
August 15	November 15

The Antique Radio Gazette is published quarterly in Madison, Connecticut.

Yearly dues of \$10.00 U.S. currency are payable to ARCA January 1, of each year for members in the USA, Canada, and Mexico. Overseas dues are \$12, which includes airmail postage.

The Antique Radio Club of America was incorporated in the State of Kentucky, in September, 1972. The first meeting was held at the Marriott Motor Inn, Washington, D.C., on September 23, 1972. At this meeting, by-laws were read and approved and directors selected. We feel that the inception of this Club is a giant step in bringing together those individuals whose chief interest lies in the area of early radio. We invite all collectors and historians of the subject to join the Club. A note to William E. Denk, Secretary, 81 Steeplechase Road, Devon, Pennsylvania 19333, will bring you an application blank by return mail.

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DUES NOTICE

Regardless of the month in which you joined, dues are payable to ARCA on January 1st of each year.

Dues are now \$12.00 U.S. for U.S.A., Canada, and Mexico, See GAZETTE, page 1, Fall 1985. In all other countries, dues are \$14.00 U.S.

Please send dues to:

ARCA
81 Steeplechase Road
Devon, PA 19333 U.S.A.

Unless you enclose an SASE, your 1986 membership card will be mailed to you with the GAZETTE following receipt of your payment.

Best wishes for the New Year!

Sent in renewal
2/11/86

NOTE NOTED

Registration of the month in

when you joined, was are payable

to XACA on January 1st of each year

There are now \$10.00 U.S. for U.S.A.

Canada, and Mexico. See LISTING

Page 1, Fall 1953, in all other

countries, dues are \$10.00 U.S.

Please send dues to:

XACA

81 St. Nicholas Road

Geneva, Switzerland U.S.A.

Unless you enclose an XACA

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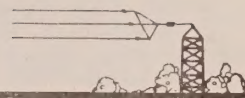
following receipt of your payment

Best wishes for the New Year

Yours sincerely,
3/10/53



President's Page



Planning is continuing for the 1986 ARCA convention to be held at Louisville, June 12, 13, and 14, at the Holiday Inn-Rivermont. Volunteers to help at the convention are still needed. Contact John Caperton, the convention host and chairman, if you would like to help in any way. John's address is 3114 Boxhill Court, Louisville, KY 40222. Full details on the convention and registration material will be sent to all members with the Spring 1986 Gazette.

The election of officers for the club year to start July 1, 1986 will be held at the convention. A mail ballot will be sent to all members before the meeting. In accordance with the by-laws, I have appointed the following nominating committee: Mel Comer (East), chairman; Ross Smith (Midwest); Les Rayner (West). This gives the club a representative from the East, the Midwest, and the West. The committee will present the candidates in the Spring Gazette.

Dues for 1986 are due to the Treasurer on Jan. 1, 1986. Probably everyone has heard that the members present at the 1985 members annual meeting voted unanimously to raise the dues to \$12 per year, effective January 1. This increase is unfortunate, but necessary, to permit the club to continue to cover the cost of printing and mailing the Gazette, and other expenses of the club. There are those who fear that we will lose some members because of the increase, but I am sure that everyone recognizes the continuing increase of costs in general, and can believe that our operating costs have increased faster than membership has grown, even though we continue to grow at a nice rate. How about all of us proving that the fears of some are unfounded, by getting those 1986 dues in on time!

There will be material distributed to members sometime during the next several months relative to proposed changes to the by-laws, and a ballot for voting on the changes. It is discouraging, but not surprising, that only about one fourth of the members return ballots. It is a waste of precious club funds to mail such material to members who are not interested in such matters. If you are interested in voting, please send a postcard to the secretary/treasurer, Jane and Bill Denk, saying that you would like to vote on the proposed by-laws changes.

I'm sure that you will all be happy to know that Ralph Muchow has been elected a Fellow in the Radio Club of America. Congratulations Ralph! The Radio Club of America is the oldest radio club in the United States, and over the years has had as members all of the outstanding people of radio history.



A BLUE RIBBON BEAUTY The Capitol Radio Phonolier by John Milton Williams

I was not too surprised when the judges at this year's Antique Wireless Association Conference awarded a blue ribbon to my 1922 Phonolier radio-lamp. After all, it was a magnificent example of early radio's first attempt at elegance, and probably the first effort to incorporate a radio into a functional and decorative piece of living-room furniture. As you know, the radios manufactured in 1922, and before, were mostly rectangular boxes with a lot of switches and dials. These magic boxes, connected by an untidy slew of wires and batteries, mysteriously plucked wonderful sounds from the air and played them through headphones or primitive loudspeakers. As wonderful as it was, the ladies of the house did not appreciate this "junk" in the living room. I suspect this was Captiol's thought when they decided to market their radio-lamp.

As certain as I was about winning a blue ribbon, I was totally unprepared for the reactions of my fellow collectors and their wives when the doors to the contest room opened.

"That's the silliest-looking radio I've ever seen," blurted one old-timer to his silver-haired spouse. "Maybe so," the wife said, "but it's the only one of these old radios that I'd want in my living room."

"It's absolutely beautiful," exclaimed one charming lady as she posed beside it for a photograph her mate was taking. "Now you'll take one of me next to it," he instructed. "I want my grandchildren to see me with it, or they won't believe me."

"They never made such a receiver in those days," growled one member who was obviously older than the radio. "If they had, I would have seen it."

Fortunately, the overwhelming majority of the radio collectors there

agreed that it was, indeed, a rare and beautiful radio of historical significance. I deeply appreciated their enthusiastic comments. Almost everyone who spoke to me about the radio asked, "Wherever did you find it?"

So, for all those nice people, the following tale is told:

I had first seen the Phonolier radio at Jim Riley's Antique Shop in Norwich, Connecticut, a year or so before. He was hoping to trade it for some nice phonograph, which is what he collects. The Phonolier was in terrible shape and the once-lovely shade was completely rotted away, except for the woven metallic trim.

I assumed the radio must have been manufactured around 1925 or so. At first I was not overly-impressed with it, but the more I looked at it, the more I saw its potential for restoration. I thought it over for a whole year, and dropped by Jim's place on the way home from the summer Antique Radio Club of America meet at Bob Merriam's fantastic Wireless and Steam Museum in East Greenwich, Rhode Island. I had taken along a rare, early cylinder phonograph that I'd had for years, with the thought of trading for the Phonolier, if Riley was agreeable. This time the radio-lamp looked even more interesting than before, and I was able to make the swap with Jim. (Both of us old horse-traders were thoroughly convinced we'd out-witted the other, so we were truly happy as I loaded the radio into my car.)

As fate would have it, my frustrating lower-back problem was acting up that day, and by the time I got home I could hardly walk. Instead of unloading my car, I went right to bed. It was several days before I could get up and around.

John Drake came by to see me, and I asked him if he'd be kind enough to unload my car. When he carried the Phonolier in, he told me he had seen a picture of it in an early *Radio News*, and he thought it might

The New York Radio Exhibition

Held at the 71st Regiment Armory



The RADIO PHONOLIER

combines Lamp, and complete Radio Receiver, one step Radio, Detector, Tuner, two steps Audio, and Loud Speaker.

The "All Wave" coupler, plus the Radio Stores Condenser, gives the Radio Phonolier a range of from 150 to 3,000 meters.

The Radio Phonolier is built of solid copper, and finished in Bronze, Silver or Gold, with lamp shades to match or contrast with interior decorations.

List Price, \$300 And Up
Without Tubes and Batteries

One exhibitor, by an ingenious arrangement, succeeded in disguising a tuner, a detector and two-stage amplifier to appear in the form of an electric table lamp with a light inside and everything. The upright support of the lamp was in the shape of a horn to which was attached the telephone receiver. This should undoubtedly prove a boon to the inveterate practical joker who will be able to bewilder his friends with the mysterious music and reveal its source amidst acclamations of surprise.

The
New



have been in 1922. We both inspected the radio and were impressed with its uniqueness. However, when we took the radio panel off the set, it was immediately obvious that the original coil had been replaced with later versions and both tap switches had been disconnected from the circuit. "Don't worry," John said. "If I'm not mistaken, the Capitol Radio Company made a vario-coupler that fits this receiver, and I have one at home!"

So John removed the panel with the parts and took it home to replace the coil for me. He later called to say he had replaced the coupler and rewired the tap switches. He told me that the loud music I heard in the background was my radio playing!

There were not too many people around then who could afford a lamp-radio that cost as much as a 1922 automobile. It appears as though the Capitol Radio Company might have sold out to the Shepard Potter Company of Plattsburg, New York. In 1924, that company put out an identical All-Wave coupler in both junior and regular models, under their brand-name, "Shepco." They also manufactured a Shepco receiver that used their All-Wave coupler.

Now that the radio was complete and working, I decided to totally restore the lamp-radio to its original splendor. My first step, since the finish had oxidized completely, was to have it replated and lacquered to

The "All Wave" Coupler

TRADE MARK

(FLAT AND BACK WOUND)

Eliminates the use of all Variometers, Variocouplers and Loading Coils, inasmuch as it performs in one compact unit the functions of all of these devices combined.

For the Novice—The six efficient hook-ups given free with each "All Wave" Coupler enables the greenest novice to attain the same results attained by the expert in building the simplest, most compact and most efficient radio receiving set possible.

Guaranteed Wave Length—150 to 3,000 metres, with the most selective tuning imaginable for long and short wave and long distance reception.

Unusual Results Attained—Individual users of the "All Wave" Coupler have written us that in New Jersey they have listened in as far west as the University of Wisconsin and Chicago, whereas in Montreal, Canada, it is nothing unusual to bring in Schenectady, Detroit, Chicago, Pittsburgh, Newark and the Arlington time signals, direct.

Beware of Imitations—of the "All Wave" Coupler, which is guaranteed with a money back to operate as advertised. Look for the trademark, "All Wave" on the rotor.

\$9.00 Six efficient Hook-ups sent upon receipt of 10c stamps or Free with each "All Wave" Coupler



Patents Pending

Capitol Phonolier Corporation

54-60 Lafayette Street, New York City

The Capitol All-Wave coupler was used in all models of the Phonolier. It was later sold by the Shepco Company.

The "All-Wave" coupler John had found was the heart of the Radio Phonolier. This vario-coupler was patented by the Capitol Radio Company, and they sold it separately for \$15.00. Apparently they sold very few of their radios, because they didn't seem to advertise after 1922. Their basic three-tube bronze-plated one sold for the extravagant sum of \$300.00 (without tubes or batteries)!

preserve the silverplate. Then came the hard part! I thought it would be a fairly simple task to find someone who could make a shade for it that would look like the original. I contacted every known lamp-shade maker on the East Coast and could not find a single one who could do the job. In desperation, I called the Clifton, New Jersey editorial offices of *Home Lighting & Accessories*

WHY WASTE YOUR TIME WIRING?

Hook up with the "Socostat"!

HERE is a combination of socket and rheostat that eliminates the wiring of two separate parts. Saves time, material and money.

No exposed wires. The internal rheostat permits very sensitive filament adjustment. Tube noises reduced to a minimum. Bakelite base and cover. Nickel-plated receptacle takes any standard detector and amplifier tube. Rings and screws all nickel-plated.

Simplify your construction, and improve appearance and operation of your set.

Jobbers and Dealers write Automotive Electric Service Corp., 206 Amsterdam Ave., New York City.

Manufactured by

FEDDERS MFG. CO., Inc.
57 Tonawanda Street
Buffalo, N. Y.

"SOCOSTAT"



Single-Unit Socket and Rheostat
for table or panel mounting.

Guarantees a smooth and positive contact.

Price \$2.50 each

Buy from your dealer, or if he cannot supply this new, improved device, send the money to us with your dealer's name and we will send direct, parcel post, prepaid,

Descriptive literature on request.

The Phonolier utilizes this unique tube socket and rheostat combination. The filaments can be individually controlled by turning the bakelite ring around the nickle-plated tube socket. They still work perfectly. Yes, the Fedders Company who made the Socostat is the same one that now makes air-conditioners.

Magazine, a beautifully produced publication for the retail lighting business. Peter Wulf, the editor, was kind enough to speak with me. When I explained my problem, he thought my best chance of getting an authentic lamp shade made would be Irma Jabali Inc. of North Hollywood, California. Mr. Wulf also said he would run a story on the radio-lamp in his magazine.

By now, I was in too deep to back out on my restoration attempt, and the lamp was much too rare and interesting for a half-hearted attempt. I called the Irma Jabali Company and had the good fortune to reach Sandy Esparza on the other end of the line. I explained that I had gotten her company's name from the magazine editor and that I hoped she could help me with my restoration problems. She was so kind and helpful, and seemed to understand exactly what needed to be done. She asked me to send her a photo of the radio and the wire cage that had the rotted shade on it, which I did.

Sandy called me back as soon as she received my package, saying that yes, she and her team of experts

could do the job. They could use the original brocade trim, and they had on hand a treasure of antique silk—in the same color as the original and dating from the same period as the radio—to replace the original shade.

It was costly, but it was magnificent! I was thoroughly pleased with her beautiful restoration, and the purple-rose color was just right. At every stage, this company was a joy to do business with.

*So, with many thanks to Sandy Esparza of the Irma Jabali Company in Hollywood, Peter Wulf of *Home Lighting Magazine* in New Jersey, John Drake in Madison, Connecticut, and the noble judges at the AWA meet in Canandaigua, New York, the lamp was a tremendous success.*

Fortunately, the overwhelming majority of those who have seen it have agreed that the Phonolier is, indeed, a rare and beautiful radio-lamp with improved historical significance. A few hated it, many loved it, but everybody had some reaction and some comment to make about this radio. That was, as I recall, the purpose for which the radio club was founded.

MEL'S CORNER



Another Antique Radio season rolls by with more and more new collectors becoming involved in this great hobby of ours.

The big meet of the year at Canandaigua, New York, exceeded all attendance expectations, setting new records. The ever-expanding flea market pushed out to new limits with new collectors coming from everywhere. Most interesting was the number of overseas collectors who travel to this event.

The various meeting sessions on the program were well attended—with loads of questions tossed at the speakers and the audience joined in with helpful remarks. The old equipment contest where ribbon awards are made was the largest ever! The judges were hard pressed with the array of items in special categories. It is helpful and important for those displaying equipment in these contests to have papers—catalogues—anything to substantiate the authenticity of the items. Award points are added for relative paper descriptions. Not easy to find!

The restoration of old gear was remarkable this year. Some were over-done—looked better than what the original manufacturer had produced. Conformance to original hardware is important. All it takes is a nonconforming Phillips screw on a 1920 item to upset the apple-cart!

First prize winner—Mike Katzdorn—did a fantastic restoration on a World War I French receiver, brought back from Europe by Major Armstrong after the war. Stored in a decrepit

warehouse—out in the open—it was in horrible condition. Mike meticulously disassembled every nut-bolt-component of the receiver, and after many tedious hours, it was a sight to behold. Few antique items require such fine detail of restoration, but when it is an extremely rare piece it is worth the effort. Too many of our collectors, in the excitement of finding a rare item, have a tendency to rush the project of restoration.

Many of our collectors are willing to help with identifications and will check their files of catalogues and papers to lend a hand. Knowing exactly what you are working with and what you expect the outcome to be, requires patience and a bit of research. Parts and components are still around, as evidenced in the flea markets and at local radio meets. An ad or two in publications brings surprising results.

The French receiver mentioned above was found without tubes! Where in the world do you find those vintage tubes these days? Mike passed the word—people started looking—and lo and behold—out of a remote warehouse in Illinois came six brand new ones in boxes. “Metal” tubes—all in working order!

Sometimes you find an item that appears hopeless—beyond repair. Set it aside for a while. Keep looking. If you give up, there are others out there that just may be looking for a junker with parts. An ash can is no place for old radios these days!

Collections come and go as time goes on, but museums survive! So far just a few specialize and show antique radios. If you consider future donations—check—and pick the right ones!

CHEERIO!!

Mel Comer
205 Roberts Road
Ardmore, PA 19003

Our newest members

William K. Moore, Jr., Huntsville, AL
Carl Jepson, Northville, MI
Robert Filz, San Francisco, CA
John Scott, Columbia, MO
Zane Parsons, Jr., Denova, WV
Kentucky Highlands Museum Society
Ashland, KY
Bill Sherard, Alexandria, VA
Samuel V. Moschler, Burlington, NC
"Andy" E.E. Schaefer, Hackensack,
MN
Don Jackson, Montgomery, MN
Mark S. Cowart, Jacksonville, FL
Michael D. Lewis, Oregon, WI
Mendy Kaplowitz, Brooklyn, NY
Bill M. Humphreys, Oklahoma City,
OK
Albert Boucher, Kapuskasing,
Ontario, Canada
Joseph Mullan, Baltimore, MD
Dr. Max C. de Henseler, NYC, NY
Robert Van Dyke, East Quague, NY
Charles R. Martin, Dayton, OH
Capt. Richard W. White, Jr.
Hawthorne, CA
George W. Pope, Jackson, MS
Joseph J. Milano, Jr., Wayne, NJ
Anthony Scarfogliero, Brooklyn, NY
Minoru Wakasugi, Toyonocho,
Osaka, Japan
Guy Thomas, Rogers, AR
Thomas John Rose, Upland, CA
John Sakas, Totowa, NJ
Garth H. Camilli, Chase,
B.C., Canada
Richard Ferranti, Arlington, MA
George E. Miller, Rockledge, FL
REINSTATED:
Chris Spradling, Charleston, WV
Ed Vernor, Lakewood, OH
Robert Hopkins, St. Louis, MO

Those Little Fundamentals

One of my first serious introductions to radio included an encounter with a book bearing the impressive title of *Fundamentals of Vacuum Tubes*. Not more than a quarter inch thick, this little literary jewel, in common with other works of similar dimensions, omitted all unnecessary detail and merely hinted at much of what was downright essential. I still recall Chapter 1 verbatim, "O.W. Richardson suggested thermionic emission is analogous to evaporation of water molecules from a boiling liquid." End of Chapter 1 text, just like that! Then came problem #1, "Show that thermionic current is proportional to the $3/2$ power of the emitter absolute temperature."

For a time it was touch and go, with my continuing radio education hanging in the balance. But with scads of help from an indulgent instructor plus liberal reading assignments of other source materials, I somehow survived that little monster proudly masquerading as a textbook. (Or was it the other way around?) An odd thing happened in the process. Despite the abbreviated language and the paucity of information offered, a real affection developed for "fundamentals." Perhaps because of those qualities (?), I remember much, much more of it than of other, tome-sized texts.

Another momentous encounter passed totally unrecognized when in 1948, I was privileged to attend a demonstration of a pea-sized blob called a *solid state device*. Someone did himself up brown with that handout. A first rate snow job, six sheets of a solid mass of mathematical hieroglyphics. If that paper slighed any important math function, it must have been hopelessly unavoidable. Obviously the device was merely an amusing little laboratory toy, and not nearly as much fun as writing about it. Nothing to worry about, or with that handout.

For ten years I was approximately correct. It was that long before I again heard the name "transistor." Still nothing too exciting, but someone had extracted from that earlier masterpiece a few simple parameters to describe its functioning. It wasn't very long until some idiot combined transistors and printed circuits to produce the world's first throw away radio. As for further developments, I am now beginning to suspect the transistor is not a passing fad. That little sucker not only crept up on me unaware, but left me in that state for over 35 years. Which brings up that long misplaced handout, definitely another "fundamentals" — in super condensed form appropriate to miniaturization. But no use sighing, no way I could have survived that one.

Dale Parsons
5408 Morrison Drive
Cross Lanes, W. VA 25313

SILENT KEY

Our Club records, with sadness, the death on October 22, 1985, of Honorary Member, Edward G. Raser, W2ZI. Ed received his first amateur license, 3NG in 1914, but was on the air as early as 1910, using a Ford spark coil. A former commercial wireless station operator, Ed was a member of AWA, QCWA, and a Life Member (No. 35, Spark Gap Pioneer) of the Society of Wireless Pioneers.

Shortly after becoming interested in pursuing the history and artifacts of early radio, this writer visited Ed Raser and his remarkable "W2ZI Historical Wireless Museum" and associated library in Trenton, New Jersey. I found Ed to be a friendly, scholarly gentleman whose knowledge of the origins of radio seemed limitless. His museum, containing only items of significant interest in the history of radio, was a revelation. That is evident from the fact that representatives of the British Marconi Wireless Telegraph Company

made the trip to Trenton to examine certain Marconi items that were unavailable to them in England.

A genial host, Ed also had a flair for showmanship. Included in his museum were three operating spark sets, which he demonstrated, starting with the smallest. When he operated the largest (a one kilowatt, rotary, synchronous spark set), the museum was filled with the smell of ozone and a deafening roar that literally raised the hair on one's head!

This fine museum no longer exists. Several years before his death, Ed had distributed his collection among various deserving museums and private collections.

To Ed's wife of sixty-three years, Pauline, a licensed radio amateur in her own right, ARCA offers its deepest sympathy. With Ed's death, another of our early wireless pioneers has become a silent key.

Bill Denk

NOTICE

Would like to hear from New Jersey area collectors interested in forming a local chapter of ARCA. This would serve several purposes, such as helping a beginning collector find out where he can get parts or information locally, getting to know your area collectors, and generally serve as an exchange for ideas. Hopefully, we would have a group with one or two mini-meets a year and several get-togethers. At this time, I am trying to gauge interest in this idea. Please write to let me know if there are enough area collectors who wish to do this, and if you are willing to help. Also, talk to your nonmember collector friends and see if they are interested. Perhaps this would convince some of them to join ARCA.

Jim McKinnon
605 No. Bridge St.
Bridgewater, NJ 08807

Attention New Englanders!

About one year ago, Howard Plouf, a fellow member and neighbor, wrote a letter to all members in the New England area. At that time, in the next *Gazette*, he wrote an article in regard to forming a New England Chapter that is *active*.

Howard says, after all his effort in writing the letters, not to mention the cost, he received only two replies.

With the large membership, plus many ARCA officials from New England, I must say "Shame on you!". Regardless of who is in charge, or who takes credit for starting a New England Chapter, we should all show interest in the club we belong to. I think we should organize a meet as soon as possible to work out an annual program. So please give it some serious thought.

I don't see any reason why we, the New Englanders, can't have the most active chapter. To me, a good club is more than a quarterly *Gazette*.

Also, I think Howard deserves a reply, don't you?

Thomas J. Maciolek

Howard B. Plouf
150 Old Fuller Rd., Ext.
Chicopee, MA 01020

News from Charleston

The Kentucky Highlands Museum celebrated its first anniversary in mid September. The affair was attended by a host of people and was a festive occasion. President, Lloyd McIntyre, and several other chapter members were present. The ARCA exhibit was the hit of the show. The museum's monthly publication *Highland Highlights* headlined the exhibit by calling it "incredible." The article outlines the display which is made up of items from the personal collection of the Charleston ARCA members. ARCA member, Clyde Trivette, has been named curator of

the historical radio portion of the museum. The radio display features many items from Clyde's collection.

The museum is located at 1516 Bath Avenue, Ashland, Kentucky. Mayo Manor, which houses the museum, was highlighted in the second quarter *Report to Shareholders* by American Electric Power Company which was distributed with the second quarterly dividend payments.

Our October meeting was a picnic held at the home of Dale and Gay Parsons. Dale, in addition to being an antique radio collector, has a fine collection of antique clocks; the oldest dates back to the late 1700's and is in working order. He has numerous other old and unusual clocks ticking the time away.

Late in October we met again at our new headquarters on 7th Avenue in Charleston, West Virginia, to clean up a collection of antique radios that we had left over from our Econo-meet in August. These radios are part of the collection bought by Clyde Trivette from a collector who had long ago lost interest and had them stored as junk in an outbuilding. Most are in good shape in spite of past abuse. We have them on sale along with a collection of Riders' and other books and antique radio paraphernalia.

J.A. Moore
Editor/Reporter

Wireless outfit on moving van traces message

The above was the caption of a story that appeared in the May 1917, issue of *The Electrical Experimenter*.

It could very well be the first official use by the government of a radio equipped automotive vehicle to track down an illegal broadcast or station.

The story is as follows:

"After a search of three months for an amateur wireless operator who

sent out unsigned "SOS" messages in the neighborhood of New York and caused great annoyance to the New York Navy Yard and Navy vessels, the federal authorities recently arrested William F. Eckoff, sixteen years of age, who had a wireless station on the roof of his home in Brooklyn.

When the messages were first heard, there were reports in shipping circles of submarines operating near New York. After several of these calls, stations nearby recognized them as the work of an amateur. The New York Herald's wireless station worked with the operators at the New York Navy Yard in an effort to locate the station. The log at the Herald's wireless station shows that these distress messages were sent at all hours of the night. The mysterious operator used the calls of the Navy Yard and Naval vessels.

Louis R. Krumm, Chief Radio Inspector of the Department of Commerce, engaged a moving van and installed in it a small wireless set which could detect messages within the radius of only a block. Operators had traced the messages to Brooklyn, and, with the moving van, Mr. Krumm went about Brooklyn until he arrived in front of the Court Street house.

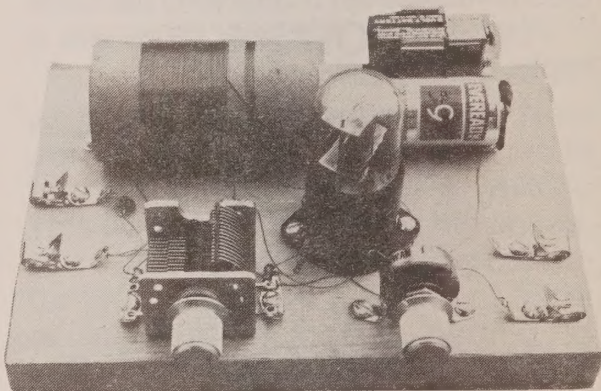
It is alleged that Eckoff used a United States code signal on the night of January 21 last, sending an "SOS" call which was picked up by the Herald Station and relayed to the super-dreadnought Arizona at the New York Naval Yard.

Eckoff was arraigned before United States Commissioner Louis Bick and admitted he had been sending messages, but asserted that if he had used the United States' Code, he had done it innocently, for he did not understand the Code thoroughly enough to commit a nuisance."

There is nothing in the story about any penalty, so I assume he was let go after a lecture and his

promise to sin no more. In view of the fact that World War I was in full blast in Europe, and German submarines were operating in the Atlantic Ocean, sending fake "SOS" messages was an audacious undertaking. Who knows how many times the Navy dashed out to sea to save the poor souls on some sinking ship and came up empty while the young boy, not doubt, was sitting at his set listening to the excitement. He could have, with some justice, been strung up by the thumbs. However, he had imagination and daring and I wouldn't be surprised that he went on to a full and productive life. If he is still living, he would be about 85 years of age and probably remained an amateur operator.

J.A. Moore
Editor/Reporter



A new One Tube Radio Kit providing the experimenter or antique radio buff the opportunity to experience early radio construction and operation is available from Antique Electronic Supply.

The kit comes complete with breadboard, tube and other parts. Batteries and headphones are optional. The kit as well as a 20 page catalog covering tubes, parts, books, etc. for radio collectors and experimenters is available from Antique Electronic Supply, 688 W. First St., Tempe, AZ 85281. The price of the kit is \$16.95 plus \$3.00 for shipping and handling.

For further information contact George Fathauer, 602/894-9503.

ALLEN B. DUMONT

Allen B. DuMont was born in Brooklyn, KY in 1901 and died in 1965. According to the brochure, *Time, Tubes and Television* (researched, planned and assembled in 1944 by Herbert T. Stone for distribution to the DuMont Laboratories and dedicated to those inquiring minds who desire to know more about this new world of science in which we live) Allen, the boy who smashed in the head of his drum to find out where the sound came from, had a very inquiring mind. Another inquiring mind belongs to David Johnson in Chicago, who compiled a history of DuMont's progress.

Fred Link, the father of two-way mobile radio said—"Allen DuMont was a truly great man and inventor. I have never known or met anyone I would compare him with. In the thirties, DuMont was developing a practical high intensity, long life cathode ray tube. This cathode ray tube, in fact, made television as we know it today, a reality. It is DuMont's work that should get all of the credit for making television such a great technological achievement. DuMont was both a business associate and a friend, and I made contact with him right up to the day he passed away in 1965."

DuMont earned his Bachelor of Science and Electrical Engineering at Rensselaer Institute in 1924 and obtained a position with the Westinghouse Lamp Company. He was eventually made engineer in charge of production of vacuum tubes and was able to boost production from 500 to 50,000 a day. In 1928, he was hired by Lee DeForest and became interested in television through the experiments with the scanning disc equipment. When the DeForest Company closed in 1931, he started to make cathode ray tubes in his New Jersey home. These tubes were used in oscilloscopes, but he



Dr. DuMont, the television pioneer, holding a 14-inch television picture tube which his company made in 1938, for use in the first electronic receiver marketed in the United States.

thought they should be used to receive television signals and decided to go to Europe to see what they were doing with them over there.

When DuMont came back from Europe, representatives from Short Wave and Television interviewed him in an upper Montclair, New Jersey office and reported what he said in the December issue of 1937. What they reported as said was this: "I can't help being outspoken about our American Television situation. After seeing actual programs—real pictures packed with genuine entertainment value—on a daily basis scheduled in England; after learning that some ten thousand television sets are already in use there; after talking with English manufacturers about their plans for mass production of television sets this fall—well, I feel we in America are just dropping by the wayside. No, don't misunderstand me, I am not jumping at a hasty conclusion. No one knows better than I do the tremendous difference between the tax supported broadcasting set-up in European countries and our commercially supported situation. Nor do I overlook the extreme compactness of European broadcast service areas and audien-

ces where a 50 kilowatt transmitter can readily serve an entire nation. But the fact remains that we have every bit as good television equipment and practice here as have the Europeans. We know as much as they do regarding the technique—and probably more. But while the Europeans have gone ahead and put television over, we still keep talking and promising and stalling.”

“I was pleasantly surprised to see the British Broadcasting Corporation operating a television station in the Alexandra Palace, overlooking London. The Palace is surmounted by a mast about 300 feet high—or a total height of about 600 feet for the aerial. The 17 kilowatt television transmitter sends out its television program on 6.9 meters. Now here’s something we learn about television service areas from this London transmitter.”

“We had assumed right along that on the ultra short waves of television, the service range is on the visual horizontal. But the London transmitter is covering a far greater range than that—about 100 mile radius. On freak occasions, the London television programs are being picked up as far away as South Africa—6000 miles! I believe that the sensitivity of the television receiver provides for a greater range than we have been counting on. Also there is little static interference, although automobile ignition interference is still a problem. Another thing to be learned is the practicability of ultra shortwave links between pick-up source and transmitters. Our London friends have three television pick-up vans or trucks which go out in search of interesting news and sporting events. Each truck is completely equipped with cathode ray tube cameras, microphones and amplifiers and low power transmitters operating on about 3.5 meters. Sight and sound programs are flashed back to Alexandra Palace for rebroadcasting to the audience. We hear a lot about

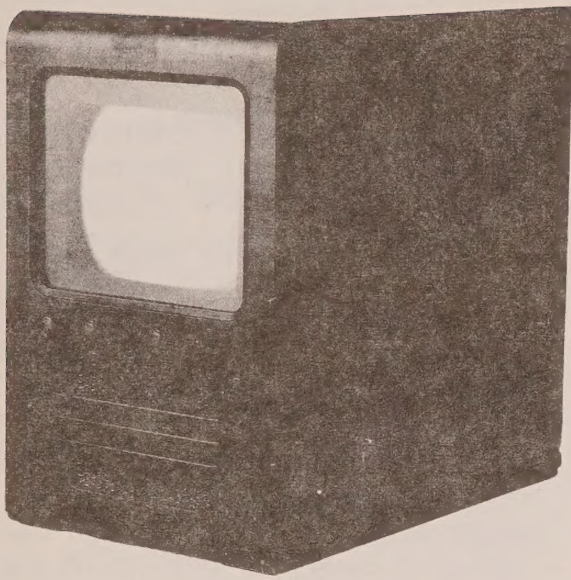
the need for costly coaxial cables in order to cover our country by a network of television transmitters. Our British friends indicate what can be done with ultra shortwave links for a nation wide network as well as for remote pick-up.”

“The British are using a 405 line screen, with 25 pictures per second, interlaced scanning. There is no flicker discernible! Nor a screen pattern when viewed at the same relative distance as a theater screen. By holding ones hand at arms length, with outstretched palm just masking the screen, we obtain the proper viewing distance for television and movies alike. I had the pleasure of following the Wimbledon tennis matches via television. The receiving pictures measured about 10 x 12 inches. The pictorial detail was excellent—fully on a par with good home movies. The synchronizing sound provides virtually a radio talking picture.”

“Going over to France, I found our French friends lagging behind the British, although keyed up to television possibilities. I visited the laboratory of the pioneer worker Barthelmy, outside Paris. There I found a well equipped laboratory and studio. They will soon have a television transmitter in the lofty Eiffel Tower, for popular television programs. France will probably go commercial on television this fall.”

“In Belgium and Holland, television is likewise moving ahead. These smaller countries follow the lead of Britain and nearby Germany. I saw German television demonstrated at the Paris Exposition. The results were splendid, even though the Germans are using 375 lines scanning as compared with the British 405. The Germans plan to go ahead to the American 441 line standard shortly.”

While in Europe, Dumont saw a television receiver laboratory model in 1938, with a large cathode ray tube on top and the RF and IF cir-



Dumont Model 180, 1938

25" × 16" × 25"

culits on the next lower level and the sweep circuits on a level below that, on a mobile rack. He also saw a receiver made by a man named Fer-ranti, with two separate levels with the controls up and down vertically on each side of the speaker on lower level. Then he came home and said it is time to make a television receiver for the people in the United States.

The American public, having been told that television was just around the corner for decades, did seem eager. In January, 1937, Radio News, agitated by the regular telecasts in Britain the previous year said—"Our American public certainly wants television."

It was reported that the larger radio manufacturers delayed television until they thought the general public would make it profitable and that television would reduce radio sales.

By the end of 1938, the difficulties of networking, programing and advertising were finally under way.

Kenneth L. McIntosh
907 Radcliffe Road
Baltimore, Maryland 21204

AK Mounting Boards

It has come to our attention that there is a considerable demand for replica boards of various sizes for use in the assembly of Atwater Kent components.

Many collectors find these AK components and try to find mounting boards of the exact specifications of the originals. In past years, a few of our collectors made up some of these boards after they located or made up the proper router for grooving the edges. These sources of supply dried up.

Recently, one of our collectors who has the necessary equipment and facilities available to produce these boards, submitted a sample board finished to specifications, which turned out great! Boards of various sizes—finished or unfinished—all at reasonable cost, are again available.

Often times collectors find some rare item that could be displayed on a suitable mounting board. Our new source is in position to supply attractive boards for this purpose as well. State your needs and contact the following for further details:

Lawrence M. DiBarry
212 North 6th Street
Chambersburg, PA 17201
Tel: 717-263-3804

AWA Old Equipment Contest Canandaigua, N.Y. 1985

Class 1 EICO Wireless Equipment 5 Entries

FIRST: Selected Early Parts,
Lauren Peckham
SECOND: Crystal Set, Parts, Paper
Jim & Felicia Kreuzer
THIRD: El Receiver
Robert Betz

Class 2 EICO Documents 2 Entries

FIRST: Books and Magazines
Felicia & Jim Kreuzer
SECOND: Selections from EICO
Robert Trauterman

Class 3 Late EICO Equipment 1 Entry

FIRST: Amateur Key
Louise Moreau

Class 4 Passive Detector Rcvrs 6 Entries

FIRST: Cohen Type A
Jim & Felicia Kreuzer
SECOND: Clark Electrolytic Det.
Ralph Muchow
THIRD: Murdock 505
Jim Troe
THIRD: MESCO
Mike Feher

Class 4E European Passive Detectors 4 Entries

FIRST: Branley Fritter
Frank Mock
FIRST: Branley's Coherer
Andre Chompret
SECOND: Abbiphone
Bengt Svensson
THIRD: Marconiphone
Joe Willis

Class 5 1 & 2 Tube Rcvrs 14 Entries

FIRST: Clapp Eastham
Ralph Muchow
SECOND: Sears Roebuck
Bob Schaumleffel
THIRD: A.C. Gilbert
Ron McClellan
SPEC. AWARD: LOEWE OE 33
Bengt Svensson
SPEC. AWARD: Telefunken
Mike Feher
SPEC. AWARD: Precision EQ ACE
Art Albion

Class 6 3 Tube Rcvrs 5 Entries

FIRST: Davis Radio Show
Joe Willis
SECOND: Halliwell Reflex
Ron McClellan
THIRD: Browning Drake
John Haught

Class 7 4 & 5 Tube Rcvrs 11 Entries

FIRST: Myers Industrial
Ralph Muchow
FIRST: Capitol Phonolier
John M. Williams
SECOND: Jones Radio Co.
Bob Schaumleffel
THIRD: Radio Lamp of America
David Moore
SPEC. AWARD: Tone-A-Dyne
Geoff Bourne
SPEC. AWARD: Crosley Buddy Boy
Clay Seidel

Class 8 6 or More Tube Rcvrs 6 Entries

FIRST: SED 7 Valve
Michael Katzdorn
SECOND: Kilbourne Clark
Jim Barrows

THIRD: Baird Television
Richard Brewster

Class 10 Vacuum Tube Transmitters 7 Entries

FIRST: Wormwood Scrubbs
Mike Feher
SECOND: Gibson Girl
Ben Kittredge
THIRD: IDH Surefire
Bill Hurni

Class 11 Best Restored Receiver 8 Entries

FIRST: Grebe MU1
John Wiesner
SECOND: SED 7 Valve
Michael Katzdorn
THIRD: Melco Supreme
Joe Pentacost

Total Entries - 69. No Class 9, Divided
Class 4. Judges: John Caperton,
Randy Renne, Dick Brewster, Charles
Days, Ross Smith, Geoff Bourne, Alan
Douglas.

BEST IN SHOW: Selected EICO Parts
Lauren Peckham
No Matlack Award, only one entry.
ELLE CONTEST: RJ-4
Ross Smith

DXing the Radiola IIIA

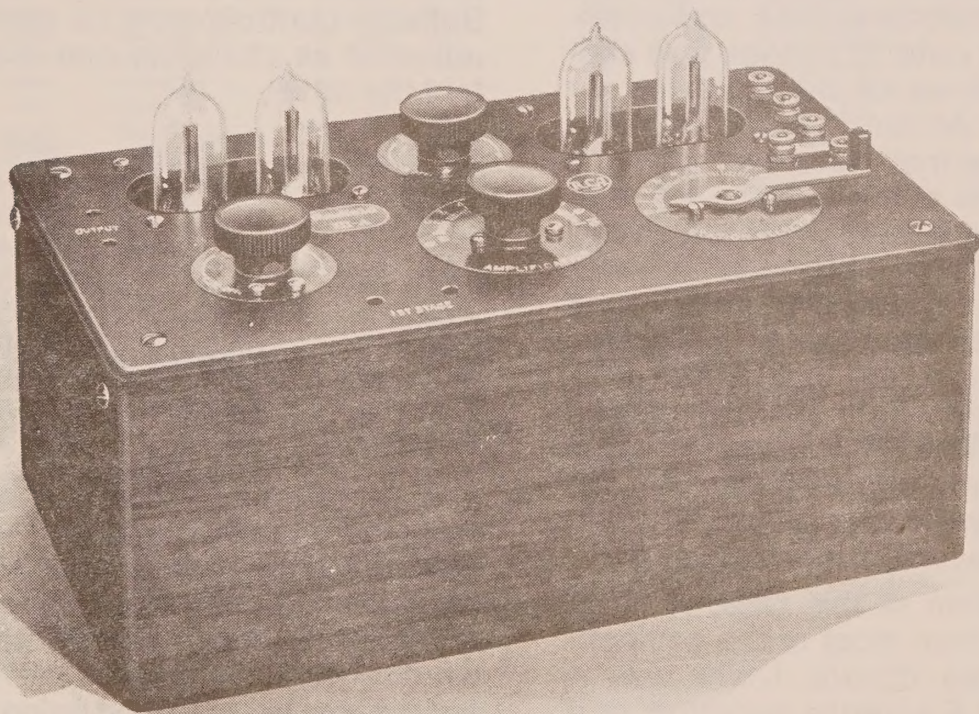
At the end of the last article, I asked for comments. Tod Prowell of Mechanicsburg, PA wrote and told about receiving 27 stations on a 50 foot indoor antenna with an AK 20. When the antenna length is considered, this is very impressive. Another letter was received asking for more information about my antennas. The antenna running East-West is about 110 feet long and 25 to 30 feet high. My other antenna has a North-South alignment, is 100 feet long and 15 to 20 feet off the ground. On most reception the East-West antenna is used, as radios generally perform better with it. This may be due to the greater height. Unfortunately, due to the layout of my property, the lower antenna cannot be raised.

Again I request comments or criticisms on these articles. My address can be found at the end of this one. Can anyone send me a photostat of

the original operating directions for a Grimes Inverse Duplex Reflex (4DL) for a future column?

Many ads for the Radiola IIIA can be found. A Radio News ad of May, 1924, claims "Loudspeaker operation up to 1500 miles under favorable conditions." and states "Improved selectivity. Minimum radiation." While the advertising claims are not as exaggerated as some of the competition, before my IIIA was used, I wondered how often 1500 mile reception was obtained.

The IIIA is described by RCA as "a high grade regenerative radio receiving set." The circuit used is a single circuit one related to several of the earlier Radiolas, especially the Aeriola and Radiola Seniors. It differs from these sets primarily in the antenna hookup, having a set of binding posts choices to vary the circuit from a straight single circuit to a "coupled" single circuit with more selectivity. What makes it different from many other manufacturers sets is the use of coil tuning.



RADIOLA III-A

This gave sharp tuning while it probably saved RCA money. The audio section of this radio is interesting. It consists of one stage of straight transformer audio amplification, and a second stage of push-pull audio, utilizing 2 tubes. At this point in time, few manufacturers were using push-pull amplification.

While my Radiola IIIA had played in the past, I wanted to check the antenna capacitors as most of the III and IIAs have problems with them. While it was apart the rheostats were cleaned and checked, as dirty windings caused problems in many sets. After putting the radio back together, it was connected and played. The sound was distorted with a hum. The problem appeared to be in the grid leak. Bridging it with a 2 meg resistor cleared up the problem. Evidently the resistor part of the grid leak had opened up.

The hookup of the IIIA is not hard. Four voltages must be supplied. For an 1.5 volt A supply, two Everready #1S6 dry cells in parallel were used. The B voltages were supplied by four Everready #763 batteries in series, detector at 22.5 and amplifier at 90 volts. C voltage was supplied by three AA cells in series, for 4.5 volts. All connections are made through a marked cable, with the exceptions of the antenna and outputs. Four RCA WD-11s were used in the set, with a brand new one for a detector. While I will admit to using substitute tubes for test purposes, correct tubes are used after restoration is complete. The horn utilized was the RCA FH, featured in some of the early ads with the IIIA. On some of the weak stations, Baldwin Type C headphones were used.

Operation of this radio is more complex than most of the competitors three dialers. There was a choice of 6 antenna hookups, or if you had the early instruction booklet, there were 7 different ways to connect the antenna. In addition, there are 2 changes between the early

and late direction booklets. Listed below are all the antenna hookups, 1-7 are the early connections, with 3A and 5A the newer variations. 1 thru 3A are sensitive circuits for the average antenna. 4 is in the early instructions only and is for a very large antenna. 5 and 5A are for a very small antenna. 6 and 7 are selective alternatives to 1 thru 3. In this set the rheostats are also the on-off switches. Turn both rheostats to the right until you see a dull red color in the filaments. If the A batteries are new, keep the filament controls to the left of the Y in the word BATTERY on the panel. The directions say to turn the Amplification control to #3 and use the Station Selector to find a station. I prefer to turn the Amplification control to the point of oscillation and back it up, operating just under the point at which the radio oscillates. Some antenna combinations may require a detector voltage of 45 volts to oscillate. Once a station is found, the rheostats are adjusted for peak performance. For best reception, the Amplification and the Station Selector controls must be carefully adjusted as changing one may affect the other.

#Ant.	Link	KHz
1 on 4	open	1500-830
2 on 3	open	1200-625
3 on 2	open	810-400
3A on 2&3	on 4	950-535
4 on 3	on 4	1070-520
5 on 2	on 3	790-525
5A on 2&3	on 4	1070-520
6 on 1	on 4	1540-800
7 on 1	on 3	970-470

In making up the Reception Record for the Radiola IIIA, the stations are only listed on the first antenna combination where reception occurred. In most cases, stations were received on at least two different antenna hookups and listing them all would not be feasible. The selective combinations were DXed first, so most stations are listed under 6 and 7. On the top of the Reception

Record are found several abbreviations, Ant is the antenna combination used, S.S. is the position of the Station Selector, and Amp is the reading on the Amplification Control.

The Radiola IIIA is a very good set for DXing. Reception was obtained on 60 stations and at least 5 foreign language stations could not be logged. To answer my earlier question about how often 1500 mile reception occurred, I now believe it happened very often considering the lesser amount of stations on the air in 1924. As for distance, Cuba was again the most distant reception, but this time it was a different station.

The selective antenna combinations worked very well, but the volume was not great. The other antenna combinations would give good volume on the locals, but would not separate the stations on most distance reception. The volume and quality of sound was below that of many three dialers, but the distance reception was better. Given its low price and enviable reception record, this made a good choice for a beginning radio fan in 1924.

Jim McKinnon
605 No. Bridge St.
Bridgewater, NJ 08807

RECEPTION RECORD FOR THE RADIOLA IIIA

kHz	Station	City, State	Ant.	S.S.	Amp.	kHz	Station	City, State	Ant.	S.S.	Amp.
560	WFIL	Philadelphia, PA	7	9.2	6.2	1000	WCFL	Chicago, IL	7	2.0	5.2
580	WHP	Harrisburg, PA	7	9.2	6.3	1000	WRNJ	Hackettstown, NJ	6	4.6	6.1
590	WARM	Scranton, PA	7	8.5	6.2	1010	WINS	New York, NY	6	4.6	7.1
610	WIP	Philadelphia, PA	7	8.0	6.4	1020	KDKA	Pittsburgh, PA	7	1.8	5.2
640	CMQ	Havana, Cuba	7	7.0	6.7	1030	WBZ	Boston, MA	6	4.2	6.8
650	WSM	Nashville, TN	7	6.8	6.7	1040	WHO	Des Moines, IA	7	1.6	5.2
660	WNBC	New York, NY	7	6.5	6.7	1060	KYW	Philadelphia, PA	6	4.0	6.8
670	WMAQ	Chicago, IL	7	6.2	6.9	1070	WKMB	Stirling, NJ	7	1.2	5.2
690	CBF	Montreal, Que.	7	5.9	7.1	1080	WTIC	Hartford, CT	7	1.2	5.2
700	WLW	Cincinnati, OH	7	5.7	7.2	1090	WBAL	Baltimore, MD	7	1.1	5.2
710	WOR	New York, NY	7	5.5	7.2	1090	WBAF	Barnesville, GA	3	0.2	7.6
720	WGN	Chicago, IL	7	5.2	7.2	1100	WWWE	Cleveland, OH	7	1.0	5.2
750	WSB	Atlanta, GA	7	4.7	7.0	1110	WBT	Charlotte, NC	7	0.9	5.2
760	WJR	Detroit, MI	7	4.6	7.0	1120	KMOX	St. Louis, MO	7	0.8	5.0
770	WABC	New York, NY	7	4.4	7.0	1130	WNEW	New York, NY	7	0.7	5.0
780	WBBM	Chicago, IL	7	4.3	7.0	1160	WJJD	Chicago, IL	6	3.1	6.4
790	WAEB	Allentown, PA	7	4.1	7.0	1170	WWVA	Wheeling, WV	7	0.0	3.8
800	CKLW	Windsor, Ont.	7	4.0	7.0	1170	WBRW	Bridgewater, NJ	6	3.2	4.4
810	WGY	Schenectady, NY	7	3.9	7.0	1180	WHAM	Rochester, NY	6	3.8	6.0
830	WNYC	New York, NY	6	7.3	6.1	1190	WOWO	Ft. Wayne, IN	6	3.7	6.0
840	WHAS	Louisville, KY	7	3.5	6.6	1210	WCAU	Philadelphia, PA	6	2.6	5.5
860	CJBC	Toronto, Ont.	7	3.3	6.8	1230	WIGS	Gouverneur, NY	6	1.2	5.3
860	WTEL	Philadelphia, PA	6	6.7	6.1	1300	WERE	Cleveland, OH	1	2.8	5.0
870	WWL	New Orleans, LA	7	3.2	6.6	1320	WKAP	Allentown, PA	6	1.7	4.4
880	WCBS	New York, NY	7	3.1	6.5	1350	WHWH	Princeton, NJ	6	1.4	4.4
900	CHML	Hamilton, Ont.	7	2.9	6.2	1450	WCTC	New Brunswick, NJ	6	0.5	5.2
920	CBO	Ottawa, Ont.	6	5.5	7.1	1520	WKBW	Buffalo, NY	1	1.0	4.8
930	WBEN	Buffalo, NY	7	2.8	6.1	1530	WCKY	Cincinnati, OH	1	0.0	9.9
930	WPAT	Patterson, NJ	6	5.6	6.2	1550	CBE	Windsor, Ont.	1	0.8	4.8
940	CBM	Montreal, Que.	7	2.7	6.1	1590	WQQW	Waterbury, CT	1	0.0	0.4

Ye Old SWAP SHOP

All ads and Swap Shop items are printed in the Gazette free of charge. We do ask that you write your ad on a separate sheet of paper, type if possible, or print, and be sure to include your name and address. We reserve the right to edit all ads. ARCA is not responsible for any transactions, of course.

WANTED: Always on lookout for items of Electro-Importing Co. of New York to add to my collection of the very early period of 1905-1922.

F. A. Nichols, 720 E. Eldorado
Appleton, WI 54911

SALE: Entire radio collection of the late Morley Fox deceased. Consists of DeForest, Atwater Kent and others. Will sell whole or by item. For further information contact:

Ms Joanne Enns, 3138-236 St., R-7
Langley, B.C. V3A-4R1 Canada

SALE: Early wireless spark transmitter with rotary spark gap. Working order for demonstration purposes. Rare early components. For information contact:

F.A. Nichols, 720 E. Eldorado
Appleton, WI 54911

SALE: Looking for WD-11 replacements to fire off that old receiver? Try my transistor type replicas at reasonable cost. For information contact:

Bud Bedker, 66 Cloverside Ct.
West Seneca, NY 14224

REPAIR-Restore old radios? Send me your problems and I will try to help. Large stock of various tubes on hand as well as parts.

Rick Weibesahl, 305 Belvidere Ave.
Washington, NJ 07882

WANTED: Paragon 3A, Paragon A2 amp, any Grebe radio with external front rheostats, also want any of the small Amrad box units and any other Amrad pieces or literature. Trades available!

J.P. McKinnon, 605 No. Bridge Street
Bridgewater, NJ 08807 (201) 526-8421

WANTED: Tube cover name plate for a Radiola 26 and the 6 tube catacomb for a Radiola 26.

Jim Barrows, 15121 41st Ave., S.E.
Bothell, WA 98012

FOR SALE: Magnavox M-4 hornspkr. \$75.00, Trimm Home Hornspkr. \$50.00, Peerless spkrs. \$25.00 each. Acme double cone spkr \$45.00 + postage.

George Arnold, 2172 Margaret St. N.
N. St. Paul, MN 55109

WANTED: Schematic for superphonic Radio TRF and any information leading to the Superphonic Radio Company in Springfield, MA. Schematic for Hetro All Wave #F75, and schematic, battery plug and harness for Magnavox TRF desk model with speaker Model T.

Daniel T. Maciolek, 52½ Enfield Street
Indian Orchard, MA 01151 (413) 543-5077

WANTED: Catalin radios (colored marblized bakelite), novelty radios, mirrored radios, character radios. Have lots of radios to sell or trade.

John Poster, 29 Crescent Ave.
Totowa, NJ 07512 (201) 785-4182

WANTED: Tuska Radios and related items. Chassis to model #91 or #92 Zenith.

Thomas J. Maciolek, 41 Greenpoint Cir.,
Chicopee, MA 01020 (413) 532-9773

FOR SALE: Tubes: type 76 only \$2 each. 6SC7 \$2 each. 6J5 \$2, 6SS7 \$2 each. Advise other needs.

M. Levy, 101 East Driftwood #26
Fredericksburg, TX 78624 (512)997-2534

FOR SALE: RCA Radiola 24 \$120 (has built in horn; loop is missing). Zenith 6S527 \$45. Many types of bulb shaped tubes. Send large 2 stamp SASE for complete and up-to-date photo list.

Ron Boucher, 376 Cilley Rd.
Manchester, NH 03103 (603) 669-1698

FOR SALE: Lots of Cathedrals, Tombstones, Novelties, Plastics. SASE for our best list ever.

E. Ripley, 2276 Holloway
Maplewood, MN 55109

FOR SALE: 14 Volume set of Ryders Perpetual Trouble Shooter's Manual. All individual volumes, no abridgements. Can ship.

Dale Parsons, 5408 Morrison Drive
Cross Lanes, WV 25313 (304) 776-2180

FOR SALE: Various early catalog reprints of Atwater Kent, Tuska, DeForest, RCA, Kennedy Brunswick, Sears, Wireless Specialty, etc. Send SASE for list. Quality reproduction.

Arthur Aseltine, 345 Glenwood St.
Ann Arbor, MI 48103

WANTED: Tube sockets of all types. I particularly need a quantity of 7 pin miniature sockets for use in one tube radio kits.

George H. Fathauer, 1725 W. University
Tempe, AZ 85281

FOR SALE OR TRADE: AK 80, Radiola RS, other radios, mags, parts. Want Crosley 50A box, Bowman AiropHONE one tube box, lit. for Zenith 7 Kol. SASE list.

Merrill Bancroft, 169 S. Row Road
Townsend, MA 01469

FOR SALE: DeForest metal tube cans \$5 & \$7; Amplion horn, \$190; bakelite variometers (various) \$12 & \$15; Patterson PR-10 receivers, \$80 & \$60.

TRADE: Radio Retailing magazines, 1925, 27, 27.

Floyd Paul, 1545 Raymond
Glendale, CA 91201

WANTED: Top for Radiola 28 & 104 power unit, UV 877 protection tube & socket, audios for Radiola IIIA.

FOR SALE OR TRADE: Tubes & radios - SASE for list.

Bruce Harbeck, 13408 Westwood Lane
Omaha, NE 68144

FOR SALE: Western Electric 316, \$15; Arc-turus 6AU6, 6BL8, 5751, \$5 each. Tube phono pre-amp/equalizer, \$10; McIntosh C108 tube pre-amp \$65; Broaner pre-amp/equalizer \$50.

Jack Smith, 59 Millpond
North Andover, MA 01845 (617) 686-7250

WANTED: Radio related literature, juvenile radio fiction books, catalogs, booklets, magazines, old wireless books.

Jerry Simkin, 10 Avalon Lane
Matawan, NJ 07747

WANTED: Brown plastic face plate for brown leather cased Zenith Trans oceanic models 600L, circa 1955. Also original owner's manuals for models 7G605 (chassis 7B04) and G500 (chassis 5G40). Would also like to buy nice working G005 (F.O.S. PG 195).

Brian Rhodes, 90 Frances Ave.
Stanhope, NJ 07874

WANTED: Old microphones and parts and other broadcasting equipment. Literature, small screen and pre-war TVs. Lid for Grebe synchrophase. Juke boxes and parts.

Robert Van Dyke, Squires Ave.
East Quogue, NY 11942 (516) 728-1327

SALE OR TRADE: WWII Canadian 19 set MKII, complete as used in U.S. Army M3 tank, all extras, manuals, mint condition.
TRADE for Tuska 225 or early Grebe.

Vic Chartrand, 727 Fraser Ave.
Ottawa, Ont., Canada KZA251 (613) 725-9549

WANTED: Glass display radio. Prefer factory made. Also want WWI items, DeForest, early portables and pre-1928 AC sets. Cash or trade.

Mel Rosenthal, 507 S. Maryland Ave.
Wilmington, DE 19804

FOR SALE: Farnsworth console TV with Channel one. 12" screen 32" D x 29" W x 42" H. Three doors, complete. Two 6 tube TV chassis. 6 tube power supply, 4 tube amp. 12 inch speaker. \$100, pick up only.

Larry Babcock, 8095 Centre Lane
E. Amherst, NY 14051 (716) 741-3082

WANTED: AK chassis 80, 82, 84, 02. Can use D, F and Q versions of above. Lyric S6 chassis. Any parts or sets from the Radio Products Mfg. Co. (RPM). Radio Retailing Magazines.

Tom Burgess, Box 9769
Little Rock, AR 72219 (501) 565-1750

SELL OR TRADE: A. H. Grebe DKJD chassis less tubes. AC version. Utah electro-dynamic A101 speaker, self contained power supply. All equipment needs repair or restoration. Need UX of UV99 tubes, good filament.

Paul D. Nevatt, 1114 S. Stewart
Springfield, MO 65804 (417) 862-1797

FOR SALE OR TRADE: Hundreds of QST, \$2.00 each, and Sams Photo Facts, \$5 each, plus postage.

David Shanks, 115 Baldwin Street
Bloomfield, NJ 07003

FOR SALE: My first illustrated list of over 40 radios. Please send legal size SASE.

WANTED: Pre-1950 TVs. Small screen, sets with Channel #1-Predictas, Pilots, Projecting, Mirror (Reflecting), etc. Make, Model, condition and photo, if possible. Paying \$20-\$400.

Harry Poster, Box 1883
So. Hackensack, NJ 07606

WANTED: Sony B/W television 8-301 & 5-303. Will pay \$125 and \$100 respectively for complete working sets in fine condition. Also want Sony radios: TR-55, TR-62, TR-63, TR-610 and TFM-151. Also literature and advertising for any of the above.

Randy Liebermann, 305 E. 40th Street
New York, NY 10016 (212) 867-5747

WANTED: Sparton Visoglo for Sparton Model 134 and 136.

Alvin Weeks, 3620 Algonquin Blvd.
Rockford, IL 61102

WANTED (desperately): For Stanco 100Mb transmitter, Stanco 6337 plate transformer, front panel, escutcheon plate, B&W coils, 160 BL thru 10BL or Bud coils RCL 160 thru RCL10. Need National Horizon 20" amp. Have National "Criterion" for tunes for trade.

FOR SALE: Browning S-23, R-27, Astatic D-104 with pre-amp as a package, \$225. Also Browning S-92700, Astatic D-104 as package, \$150. All in good operating condition.

Charles A. Days, 30 Sagamore Drive
S. Dartmouth, MA 02748

WANTED: Canadian Northern Electric Radios that use 215 A Peanut Tubes, as well as parts for same. Also looking for early Canadian Marconi and Canadian Independent Radios as well as Kellogg, McCullough or Rogers 401 tubes with filament leads on cap.

Bernard A. Payne, 116 Palisway Dr., S.W.
Calgary, Alberta, Canada T2V3V6
Phone 403 281 4341

FOR SALE: (Lead from Don Johnston) Beautiful 1937 Delco Radio Console Model R1119 (United Mtrs. Serv., Detroit) Twin 10" spkrs, etc. Excellent cond. \$45 or best offer. You pick up.

Robert C. Fischvogt, 2924 S. Park Road
Kokomo, IN (317) 453-5338

FOR SALE: Clapp-Eastman "Unico Special" (battery) receiver. SASE for descriptive sheet with photo.

WANTED: "Q" meter in good calibrated condition with manual.

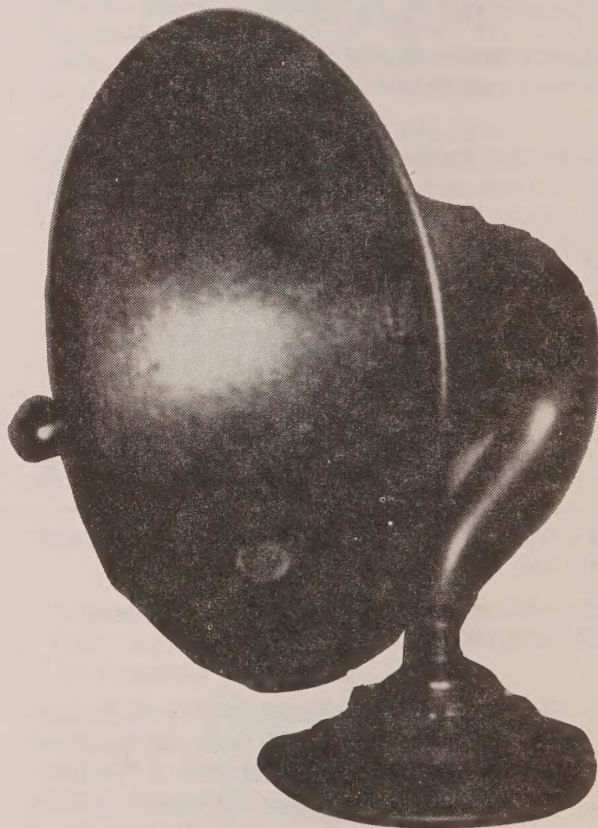
HARRY GOLDMAN, RD 3 Box 181
Glens Falls, NY 12801

TV COLLECTORS: High voltage capacitors for deflection plates, .005 at 5.2 KV, \$2 each including shipping.

Bill Hurni, W3WHT 329 Evergreen Dr.
North Wales, PA 19454

SALE: New list miscellaneous parts, components, speakers, some Marconi items. Send SASE for six page list.

Joseph Horvath, 522 3rd Street
San Rafael, CA 94901



This beautiful Atwater Kent Horn was restored by John B. Drew, 28 Babcock Road, North Stonington, CT 06359. We will give you a detailed step-by-step description of his method in our next issue.

Old-timer's Notebook

James A. Fred ©1985 J. Fred



Q. I have seen several types of volume controls specified in replacement recommendations for 1920 to 1960 radio receivers. Why are there so many ways to control the volume of radios and why are there so many different controls?

A. The early phonograph had a simple method of controlling volume. The manufacturer used a shutter or stopper in the horn to physically shut off the sound. This was effective since the volume wasn't all that great, but when radios came along, there was ample volume available to fill a concert hall. The first volume controls were wire wound rheostats in series with a battery and the tube filaments. As you increased the resistance in series with the battery, you decreased the voltage on the filament of the tube. This decreased the gain of the tube and the sound coming from the loudspeaker.

As stations became more powerful, the filament resistor no longer did the job. About this time Radio Engineers found that you could vary the gain of a tube by changing the grid bias. Another popular method of controlling volume was to use a dual control with one section in the antenna circuit and the other section in the grid bias circuit.

As soon as the superhetrodyne circuit with a diode detector became popular, a much better way was found to control the volume. Since the audio voltage appeared across the diode load resistor, it was easy to tap off the amount of voltage needed to get the desired volume of sound in the speaker. To simplify the circuit, the diode load resistor became the volume control whose rotating contact arm could pick off any amount of voltage needed.

Even though you will find diode load resistors from 100,000 ohms to 5 megohms, you can replace most of them with a 500,000 ohm variable resistor. Since our ear doesn't respond in a linear manner to sounds, a special resistance curve called an audio taper, is used in this type of volume control. Thus the volume will increase at a rate that sounds normal to our ear. There are many volume control tapers, but we show only three. All the rest are variations on these three basic curves. The linear taper changes resistance value at a constant rate per degree of rotation. The audio taper shown has 10% of its resistance at 50% of its rotation. A reverse audio taper has 90% of its resistance at 50% of its rotation.

You will also find volume controls with the resistance tapped at various points. Tap locations are usually 39%, 50%, and 69% of rotation. The tap is usually there so some form of tone compensation can be put into the audio circuit at higher volume levels. The tapped control was usually found on radio-phonograph combinations and higher priced consoles.

When replacing volume controls, try to use the same electrical type, i.e., wire wound for wire wound and carbon composition for carbon composition. Many volume controls have an off-on switch attached to the back of the control. On other radios the switch may be attached to the tone control.

Q. If I rotate my volume control and it causes a noise in the speaker, what can I do to repair it?

A. A noisy volume control can usually be helped by spraying tuner or volume control cleaner into the

control. Lubricating the point where the shaft goes through the bushing may also help.

There are two basic types of volume controls. First to come was the wirewound variable resistor and second was the carbon composition variable resistor. We call either type a volume control. Wire wound controls were used to about 1929. Sometimes the resistance wireage hardens and breaks into many little pieces, or excess current through the wire may burn out. If you cannot find a good one, you can rewind the control with the proper size wire. Sometimes a little soft grease on the winding will quiet the control.

A carbon composition control element is made by depositing a paint made with finely milled carbon mixed with some other materials. These formulas are usually closely guarded secrets known to only a few people in each company. I worked for over 25 years at the Mallory Controls Company, a division of the P.R. Mallory Company, Inc. One of their products was carbon composition potentiometers. A paint mixture consisting of a solvent, pulverized carbon, and various fillers was placed in a ball mill. After a sufficient amount of time in the ball mill, the paint was automatically sprayed on phenolic strips, traveling at a constant speed under the spray nozzle. The paint was dried in an oven, then the painted strips were pressed in a hydraulic press to harden the surface of the paint. Thirty-three horseshoe shaped resistance elements were punched from each strip. The elements were automatically tested and sorted to get the usable elements.

The element was fastened to a heavier phenolic base with two terminals. A rotor contact, insulated from the shaft, picked off different values of resistance as it rotated.

Here is what happens when your volume control becomes "noisy." After many rotations of the shaft, some carbon paint is worn from the

phenolic substrate, and in extreme cases all the paint wears away leaving phenolic showing. Each time the contact arm loses continuity with the paint, you hear a noise in the speaker. You might try to repair these worn spots by rubbing soft pencil lead over them or painting them with a carbon paint. Neither of these methods produce a lasting repair.

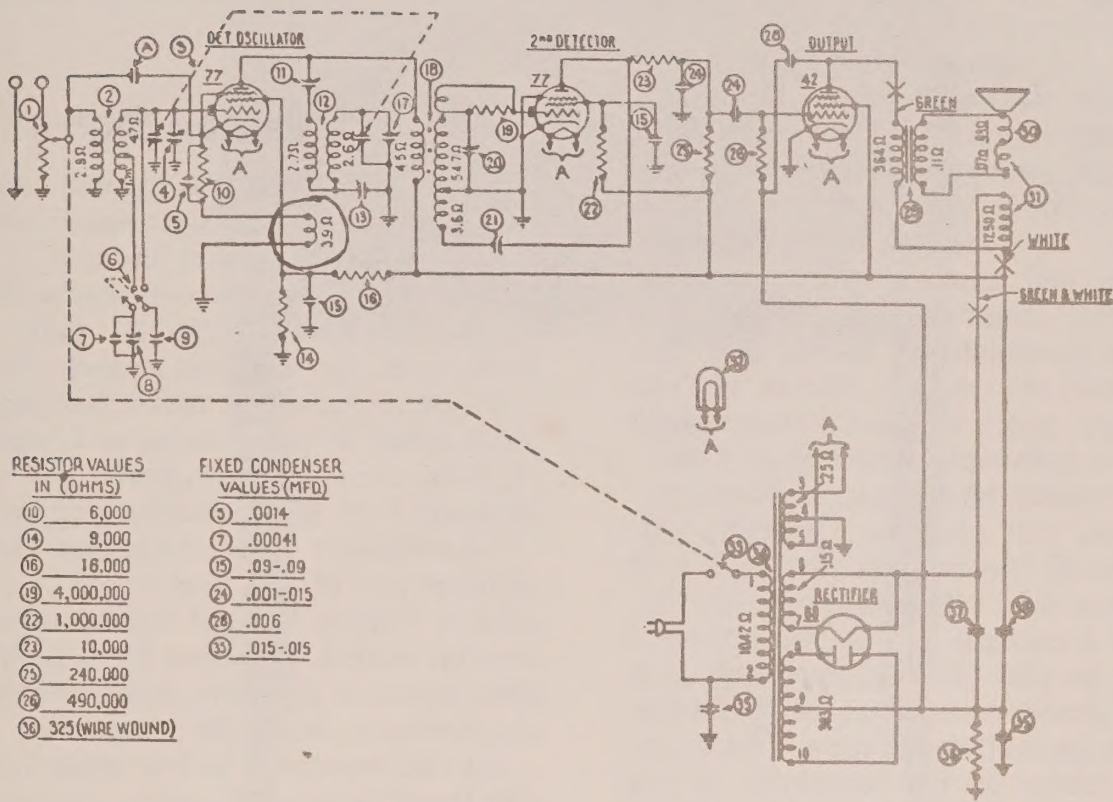
The only satisfactory repair is a new control. It is becoming very difficult to get new volume controls. Present day production produces volume controls for transistor radios. The configuration of these controls makes it very difficult to place them in old radios. I believe that the IRC Company still supplies controls suitable for old radios.

Q. I have a Philco cathedral radio that will receive one station if I put my finger on the grid cap of one of the tubes. The station is a local one and comes in very weakly. What could be wrong with my radio?

A. I've found several Philco radios to have this symptom. Some of the models might be; 81, 89, 19, 32, 57, 89, 91, and model 14. Most often it is caused by an open oscillator coil. This coil is usually 10 to 14 turns of either number 26, 28, or 30 magnet wire, wound on the mixer coil form.

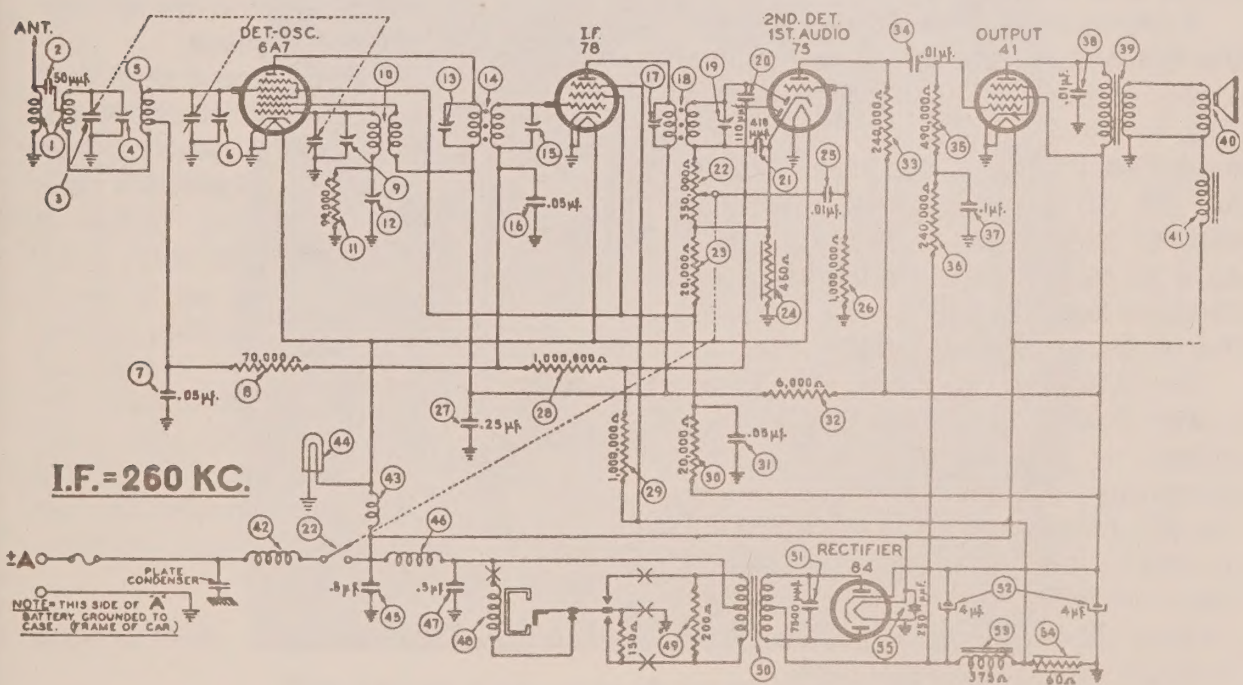
This coil is in a series with a type 36 or 77 mixer tube. This circuit, called the local oscillator, produces an oscillation that is either 260 kc or 460 kc removed from the frequency of the incoming signal. The local oscillator signal beats with the signal frequency the set is tuned to and produces difference frequency. The difference frequency is chosen and then becomes intermediate frequency (IF) which is amplified by the following IF amplifier tubes.

If the local oscillator feed back coil is open, current cannot flow in the cathode of the mixer tube and the tube is inoperative. Your body acts as an antenna picking up radio



RESISTOR VALUES IN (OHMS)	FIXED CONDENSER VALUES (MFD)
10 6,000	3 .0014
14 9,000	7 .00041
16 18,000	15 .03-.09
19 4,000,000	24 .001-.015
22 1,000,000	28 .006
23 10,000	33 .015-.015
25 240,000	
26 490,000	
36 325 (WIRE WOUND)	

The coil circled is the oscillator feed back coil referred to in the text. The wire wound volume control, resistor no. 1, is located in the antenna circuit. It forms a voltage divider from antenna to ground.



I.F. = 260 KC.

NOTE THIS SIDE OF BATTERY GROUNDED TO CASE. (FRAME OF CAR)

Variable resistor no. 22 (350,000 ohms) is the diode load resistor and volume control.

signals. When you touch the grid cap of a tube, the signal may go through the tube and produce an audio signal in the speaker.

An easy way to check for this fault is: with the set turned "off," check for continuity from the mixer tube cathode pin to ground. In some sets you will have an ohmmeter reading of less than 2 ohms if the coil is good and connected directly to ground. Other chassis will have a cathode resistor in series with the coil and will read 8,000 to 10,000 ohms if good. If there is no reading on the ohmmeter, the coil is open.

To repair the coil you must remove it from the chassis. Carefully unsolder all the coil connections and remove the coil. Before you do this draw a picture of the coil connections so you can replace each wire in its proper place. You will find three windings on this coil form. The winding closest to the terminals is the oscillator feed back winding. Carefully remove this winding, counting the number of turns of wire and observing the direction in which they are wound, i.e., clockwise or counter-clockwise with respect to the terminal end of the coil.

If you have a micrometer, measure the diameter of the wire and use the same diameter insulated magnet wire to wind a new coil. If you can't measure the wire, then either use no. 28, 30 or 32 insulated magnet wire to make the new winding. Be sure to remove the insulation from the wire before attempting to solder the wire to the terminals.

Reinstall the coil being careful to solder the wires to the proper terminals. If you have an RF signal generator, check the alignment of the RF, mixer, and oscillator circuits as well as the IF transformers. Riders Manuals will give an alignment procedure. The set may perform well enough without realignment.

Keep the cards and letters coming. We need your help to make this column meet your needs for trouble shooting information.

James A. Fred
Rt. 1, Box 41
Cutler, IN 46920

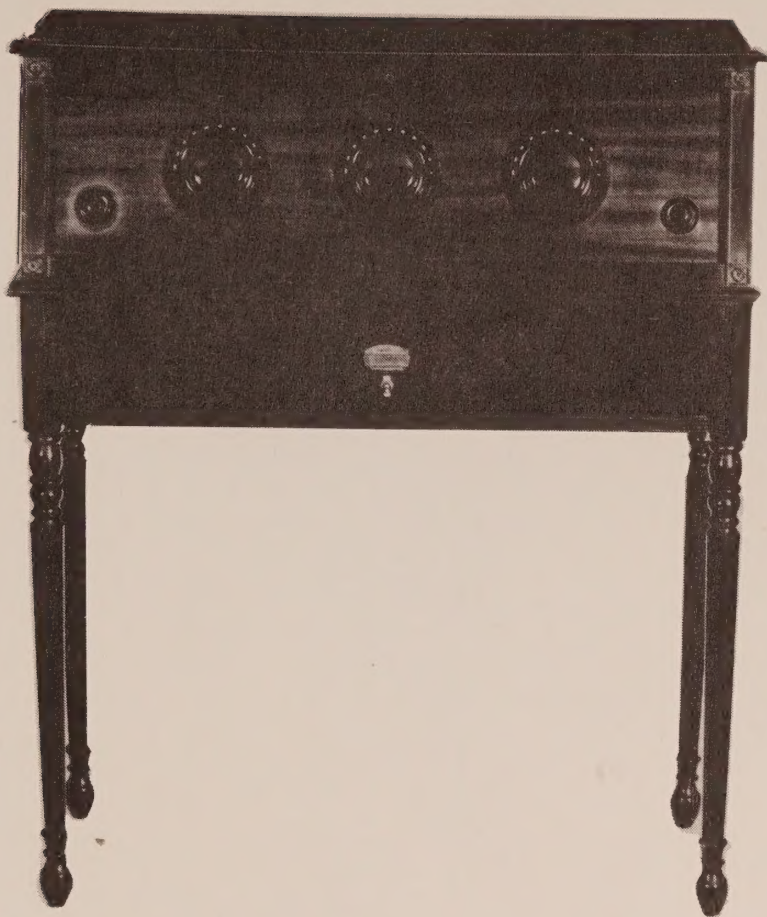
Celebrity, Please Sign In!

Collecting signatures is nothing new, and of course we all collect equipment, but how about combining the two? It's still possible to find equipment owned by famous people. This 1920-21 General Radio condenser, which sat for some time in the Canandaigua flea market, has been autographed in three places by Chester W. Rice. Rice, a GE engineer, son of president E.W. Rice, invented one form of neutralization before Hazeltine, was co-developer of the Rice-Kellog loud-speaker (Radiola 104 and all subsequent dynamic cones), and made other contributions such as submarine sound-location and hydrogen cooling for generators.

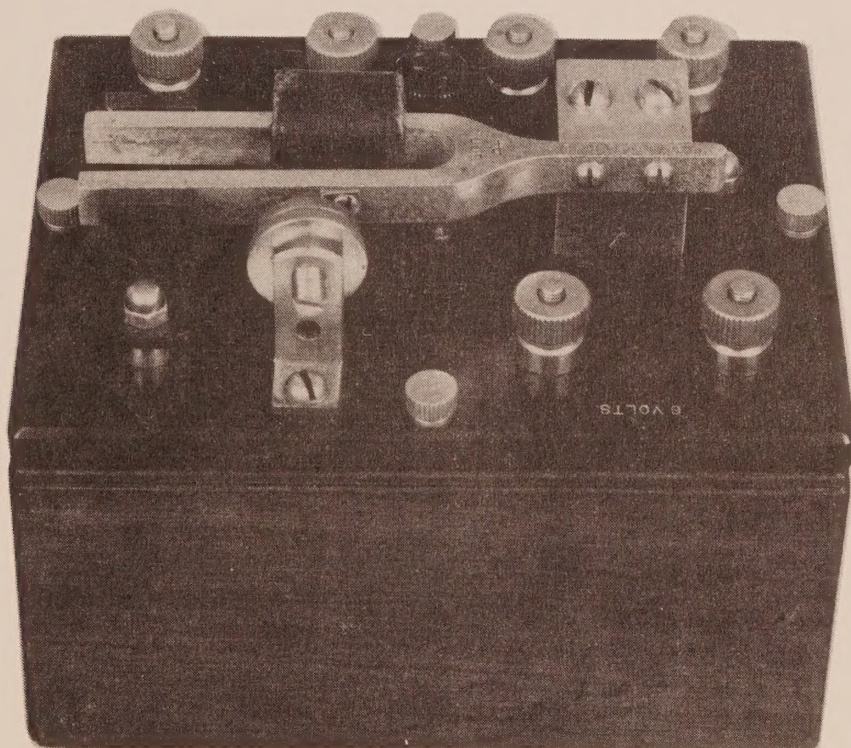
It's not impossible to find equipment with Harold Greenwood's sticker attached, equipment once part of a famous collection. But most such collectibles are not identified; the early 1920s General Radio tuning-fork oscillator pictured here came from Harry Houck's collection, and was used either by him or by Armstrong (probably both), but even without this association, it's an interesting piece.

If not engineers or famous collectors, maybe performers? This microphone was used at WNAX, Yankton, South Dakota during the 1930s where Lawrence Welk was getting his start in radio. Or famous people not connected with radio at all? The Garod EA, a 1926 AC set, is said to have belonged to Wallace Nutting, colonial furniture collector, historian, author, and manufacturer. A good sales pitch? No, this story was related only after I had bought the set, just as the seller had not heard it from the antique dealer who had sold it to him, until that sale was completed. So who knows?

Alan Douglas

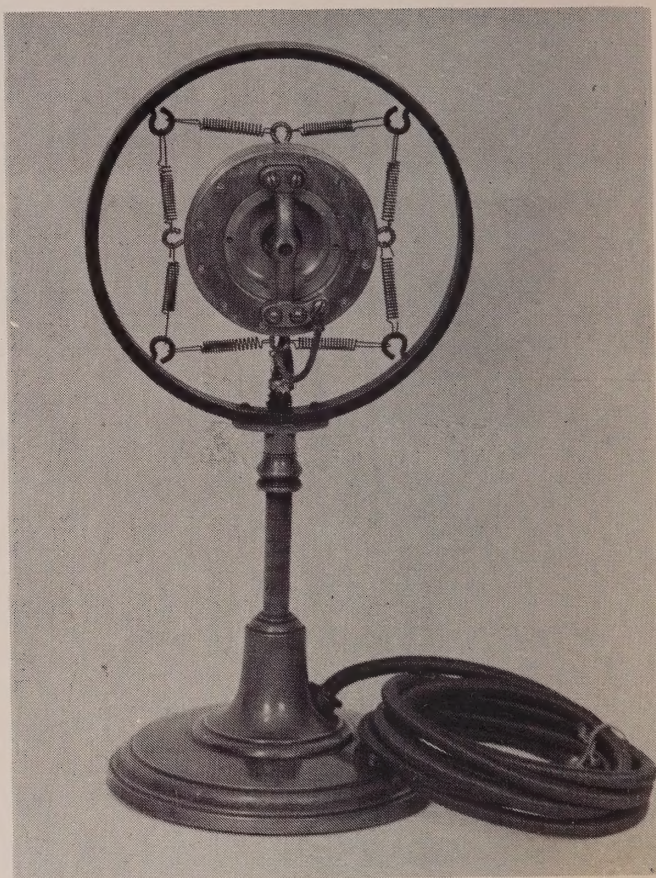


The Garod 1926 AC Set, said to have belonged to Wallace Nutting.



The tuning fork from Harry Houck's collection.

*This microphone was used at WNAX,
Yankton, South Dakota.*



General Radio Condenser autographed by Chester W. Rice, G.E. Engineer.

